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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,351

04/11/2006

Seung-Hoon Jeong

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EXAMINER

SAVAGE, MATTHEW O

ART UNIT

PAPER NUMBER

1797

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/575,351	<b>Applicant(s)</b> JEONG, SEUNG-HOON	
	<b>Examiner</b> Matthew O. Savage	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 10-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Applicant's election with traverse of species I in the reply filed on 10-28-08 is acknowledged. The traversal is on the ground(s) that all of the claims are readable on species I. This is not found persuasive because: claims 10-11 read only on species 2 since a valve housing having a ball shape is recited (see line 15 of claim 10) and claims 11-14 read only on species since first and second switching valves are recited (see lines 10 and 15 of claim 12).

The requirement is still deemed proper and is therefore made FINAL.

The drawings are objected to because, in many instances, references numbers mentioned in the specification cannot be found in the drawings. For example, reference numbers 88 and 89 mentioned in paragraph 92 of the specification cannot be found in any of the drawing Figures.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the agitating means mentioned on line 3 of claim 9 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

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and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

On line 9 of claim 1, it is unclear as to what function the phrase "for supply a raw water" implies. It is suggested that "supply" be changed to --supplying--. On line 10, the phrase "connected to the upper end of the lower end" makes no sense. It is suggested that "of" be changed to --and--.

On line 8 of claim 3, it is unclear as to what structural relationship "a rotary disk staked on the static disk" implies. It is suggested that "staked" be changed to --stacked--.

On line 7 of claim 4, "the fixing disk" lacks antecedent basis. It is suggested that "fixing" be changed to --static--.

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On line 4 of claim 5, "the static disk" lacks antecedent basis. It is suggested that the dependency of claim 5 be changed from claim 1 to claim 4. On lines 2-3, it is unclear as to how the regenerating water can reach the softening tank when the regenerating water pipe exits the regenerating tank and re-enters the regenerating tank. It is suggested that the second occurrence of "regenerating" be changed to --softening-- on line 3 of the claim. On line 4 of claim 4, "the rear surface" lacks antecedent basis. It is suggested that "the rear" be changed to --a lower--. On line 4, it is uncertain as to which element "the direction of length" is associated with. It is suggested that --of the softening tank-- be inserted after "length" on line 4 of the claim. Concerning lines 5-6, it is unclear as to how the direct water pipe can be associated with the outlet region and be built along the direction of length of the regenerating tank since the outlet region is formed in the lower end of the softening tank (see lines 5-6 of claim 1). It is suggested that "regenerating" be changed to --softening-- on line 6 of the claim.

On line 6 of claim 7, "the rotary disk" lacks antecedent basis. It is suggested that the dependency of claim 7 be changed from claim 1 to claim 6.

On line 2 of claim 8, "the rotary disk" lacks antecedent basis. It is suggested that the dependency of claim 8 be changed from claim 1 to claim 7. On line 2, it is unclear as to whether the "discrimination marks" are the same as those specified on line 7 of claim 7. It is suggested that --said-- be inserted before "discrimination".

Claims 1-9 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Jeong et al is considered the closest prior art, however, the reference fails to teach or suggest a direct water pipe for connecting the valve region and the water outlet region as well as the switching valve for inducing raw water into the direct water pipe in a direct water mode as recited in claim 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew O. Savage whose telephone number is (571) 272-1146. The examiner can normally be reached on Monday-Friday, 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew O Savage/  
Primary Examiner  
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